IN THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 15 as shown below.

~~Now~~ Currently, in most applications, and especially in on-board applications (for example for an access control of a telephone or a laptop computer, for an electronic key, etc.), the used camera (digital sensor and lens) does not have an autofocus system adjusting the (real or simulated) focal distance according to the distance.

Please move the paragraph beginning on page 2, line 1 to page 3 before the paragraph that begins on line 8.

Please replace the paragraph beginning on page 2, line 16 as shown below.

Another problem is, to save time and complexity of the method, to limit the area to be examined in definition. In particular, the small field depth ~~associated~~ in addition to the fact that the eye is spherical and that elements such as eyelashes may be included in the image makes this area localization important to evaluate the definition of the iris and not that of other image areas.

Please replace the paragraph beginning on page 3, line 23 as shown below.

To achieve these and other objects, the present invention provides a method for selecting an eye image from a set of digital images based on its definition, ~~consisting~~ comprising, for each image in the set~~, of~~:

Please replace the paragraph beginning on page 4, line 15 as shown below.

According to an embodiment of the present invention, the approximate localization comprises ~~the steps of~~:

Please replace the paragraph beginning on page 6, line 9 as shown below.

For clarity, only those elements and those steps that are necessary to the understanding of the present invention have been shown in the drawings and will be described hereafter. In particular, the structure of an iris recognition system has not been ~~detailed,~~ described in detail. ~~the~~ The present invention ~~being~~ is implementable ~~based on~~ using a conventional system, provided that said system can be programmed to implement the present invention.

Please replace the paragraph beginning on page 6, line 24 as shown below.

Such a system is intended to exploit eye images to perform an identification or authentication by iridian recognition. For example, a digital sensor 1 takes a set of images of an eye O of a subject. The number of images taken is generally of at least some ten images to enable performing the identification, after selection of the clearest image, while ~~minimizing~~ reducing the risk of having to ask the subject to submit himself to a new series of shootings. As an alternative, the images to be analyzed originate from a distant source and may be pre-recorded.

Please replace the paragraph beginning on page 7, line 15 as shown below.

A first preprocessing phase (block 4, Pre-focus) aims at eliminating very blurred images (more specifically, of assigning a zero definition score) which will obviously be inappropriate for the iris recognition. According to the present invention, this phase searches ~~strong~~ large luminance gradients in the horizontal direction (arbitrarily corresponding to the general direction of the eyelids). Such gradients are linked to the presence of eyelashes, of abrupt grey level transitions between the pupil and the iris, between the iris and the white of the eye, between the white of the eye and the eyelid corner, etc. The more abrupt transitions there are, the clearer the image will be. Since a rough preprocessing is here to be made, the gradient search is preferably performed on an approximate image, that is, sub-sampled.

Please replace the paragraph beginning on page 8, line 2 as shown below.

For example, it may be a unidirectional filtering known as the "Sobel" filtering. Such a filtering operator is described, for example, in work "Analyse d'images : filtrage et segmentation" by J-P. Cocquerez et S. Phillip, published in 1995 by Masson (ISBN 2-225-84923-4) which is incorporated herein by reference.

Please replace the paragraphs beginning on page 8, line 10 as shown below.

Score AF calculated by block 4 is compared (block 44, Fig. 2, AF>TH) with a predetermined definition threshold TH. If the obtained score is greater than the threshold, the definition determination process carries on with a second iris centering phase which will be described hereafter in relation with Fig. 4. If not, the image is rejected (block 45, Score = 0) ~~because~~ as not being clear enough.

Second phase 5 (Pupil Localization) ~~consists of~~ comprises locating the eye pupil in the image to center the pupil (and thus the iris) in an image to be analyzed. This localization pursues several aims. A first aim is to subsequently concentrate the definition evaluation on the significant area. A second aim is to avoid for areas of the image with a ~~strong~~ large gradient (especially eyelashes), which are not in the same plane as the iris, to be taken into account in the definition evaluation, and to then corrupt this evaluation.

Several localization methods may be envisaged. For example, a method based on a Hough transform associated with integral and differential operators, described in article "Person identification technique using human iris recognition" by C. Tisse, L. Martin, L. Torres, and M. Robert, published on Calgary Conference VI'02 in May 2002, which is incorporated herein by reference, provides high performance[[s]].

Please replace the paragraphs beginning on page 10, line 8 as shown below.

The elongated shape of the selected strip enables taking into account the fact that the eye is often partly closed on a shooting. This then ~~enables minimizing~~ reduces non-relevant contours (eyelashes, eyelids).

Although an elongated rectangular image forming the definition examination window is the preferred embodiment, ~~it is not excluded to provide~~ an oval, or even square or round examination windows can be provided. In the case of a square or round examination window, it will then be ascertained to size it to contain, around the pupil, a sufficient iris area for the definition evaluation. This area will however have to be preferentially deprived of contours such as those of eyelids, for example, by making sure that the eye is wide open in the image shooting.

Please replace the paragraph beginning on page 11, line 5 as shown below.

An FSWM operator such as described hereabove is discussed, for example, in article "New autofocusing technique using the frequency selective weighted median filter for video cameras" by K.S. Choi, J.S. Lee, and S.J. Ko, published in IEEE Trans. On Consumer Electronics, Vol. 45, N°3, August 1999, which is incorporated herein by reference.

Please replace the paragraphs beginning on page 11, line 11 as shown below.

For the quadratic norm of a gradient of the median of an image pixel to be taken into account in the sum providing the definition score, the respective light intensities of the pixels at a given predetermined distance from the pixel, the gradients of which are calculated, ~~must~~ should, according to the present invention at least be smaller than a first predetermined luminance threshold. This amounts to not taking into account (not accumulating in the summing equation of the FSWM operator) the vertical gradients of the pixels of coordinates (i,j) for which Lum(i,j+k)>SAT1, or Lum(i,j-k)>SAT1, and the horizontal gradients of the pixels for which Lum(i+k,j)>SAT1, or Lum(i-k,j)>SAT1. Number k (for example, between 2 and 10) is selected according to the image resolution to correspond to the average size of the transition between a specular spot and the iris. Threshold SAT1 is chosen to correspond to the level of grey for which the image is considered to be saturated.

The above condition ~~enables eliminating~~ eliminates the pixels belonging to a transition between a possible specular spot present in image EI and the rest of the eye. The pixels bringing non-relevant gradients are thus not taken into account for the determination of the definition score.

Please replace the paragraph beginning on page 12, line 32 as shown below.

More generally, the present invention ~~minimizes~~ reduces the number of computations to be performed on the pixels of an image, the definition of which is desired to be determined.